

organisms, the tridimensional ecological buildings for sightseeing and research, the combined ecological buildings. They not only have the features of architectures, but also can protect ecological environment, harness deserts, prevent floods, improve land resources and tridimensional ecological spaces, which are great beneficial to habitants with fortunes. Most of all, they change habitants from improper life manners to the proper tridimensional green (ecological) life manner, thus a new manner of life is afforded, which basically solve the problems in continuous development that improve the development of science.

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CLAIMS

1. A multifunctional tridimensional combined ecological architecture which is an ecological buildings system that combines habitants, plants, organisms and other natural environments inside or outside the combined ecological buildings, which may be closed, opened, opened and closed, combined, and other forms, the ecological building expanding spaces upward and downward, including natural ecological structures for plants, cultural places for habitants, ecological oxygen suppliers, air water filtering purifiers, air temperature conditioning systems, organisms cultivation and flow water cultivation devices, ultraviolet sanitation systems, used water purifying and storage systems, rain storages and water purifying systems, water cultivation systems, as well as cooperating facilities and equipments such as solar power generation systems, wind power generation systems, water power generation systems, mechanical power generation systems, sunlight refractive and transmitting devices, methane tanks and methane utilizing facilities, and the like etc. ; the combined ecological buildings being composed of the main body of the ecological buildings, cooperating

awning ecological buildings, cooperating garden ecological buildings, transparent ecological buildings, frame awning passage ecological buildings, as well as with additionally cooperating ecological building structures, such as hood type ecological buildings, rotating ecological frames for cultivation of organisms, oxygen rooms, methane devices, water resources and the cooperating recycling systems of energy conservation, the underground and semi-underground ecological buildings with cooperating systems, tridimensional land type ecological buildings for cultivation of organisms, tree type tridimensional ecological buildings, turret type ecological buildings and the accessory photoelectric devices and energy devices, combined passage type ecological buildings with air, water purifiers and supplier network systems, combined functional ecological buildings and Taiji type ecological buildings, combined village-house type functional ecological buildings; the combined ecological buildings and the cooperating ecological buildings may be integrated, independently provided or singly used, and may also form combined village-house type functional ecological buildings and the large-scale ecological buildings in ecological scientific towns; village-house type ecological buildings and ecological scientific towns comprise various types of ecological buildings, tridimensional ecological lands, tridimensional ecological roads, tridimensional ecological walls, tridimensional ecological rivers, storages and purifiers for rains and used water, methane tank systems, power generation systems, water recycling systems, cultivation systems for plants, organisms and aquatics, air sanitation and purifying systems for filtering water, cultivation structures for plants and organisms, cultural places for habitants, public utilities and other cooperating systems; the combined ecological buildings, cooperating buildings,

cooperating devices, cooperating equipments, cooperating systems can be used integrally, partly or separately, the tridimensional ecological walls, tridimensional ecological rivers, tridimensional ecological roads, tridimensional ecological bridges and the cultivation structures for plants and organisms can be used integrally, partly, separately or combinedly; tridimensional ecological lands are formed by providing tridimensional ecological building facilities in the spaces above or under the original lands, cultivated lands or vegetation simultaneously or separately, where tridimensional ecological buildings can be provided with plants and biotic environments, top cover green vegetation and human cultural places of various storeys; tridimensional ecological roads are formed by providing the ecological spaces for plants surrounding the original roads, which can be arranged by layers, by sections, by compartments, and upper and lower layers gardens for cultivation of plants and organisms, ecological houses for plants and cultural places for habitants can be provided surrounding the roads partly or completely, the surface of the roads may be higher than, lower than or equal to the ground; tridimensional ecological bridges can be formed by providing upper and lower layer gardens for cultivation of plants and organisms, ecological houses for plants and cultural places for habitants, by layers, by sections, and by compartments around the bridges, on or under the bridges higher than or lower than the ground; tridimensional ecological walls can cooperate partly or entirely with building facilities like village-house type ecological buildings, ecological scientific towns, and the cultivation places for plants and organisms, and the tropic forests ecological systems can be arranged surrounding the walls, which may be used locally or completely, and which may be disposed inside or outside the buildings, the ecological walls may be combined with inside ecological systems for

plants to form fixed or movable multifunctional tridimensional walls, on which there may be illumination systems, audio systems, alarming and monitoring systems, solar power generation systems, wind power generation systems, pools, watch towers, cultivation systems for plants and organisms, methane tanks and others with unlimited volumes, which may be hills and water type, plants, hills and water walls type, plants type, platform type, composite type, ladder type, turret type, patios type and the combinations, the ecological wall can have different functions and structures and can be provided inside or outside the buildings, the ecological rivers are river systems which entirely or partly surrounds the village-house type functional ecological buildings and ecological scientific towns, which comprise tridimensional ecological rivers buildings, awning type river sections, exposed rivers, hidden rivers, water purifying and recycling systems, sub branches for cultivation of organisms, purified ponds, river water systems based on plants and organisms, ecological houses for cultivation of aquatics, water reservoirs systems, water collecting and purifying systems for rains, snows and used water, and recycled water systems; the ecological rivers may be composed of the ecological functional buildings, cultivation structures for organisms, or cultural places for habitants, with small or large occupied areas, which may be inside or outside the building and may be connected between inside and outside with each other; the tridimensional ecological buildings, the tridimensional ecological lands, the tridimensional ecological roads, the tridimensional ecological bridges, the tridimensional ecological walls and the tridimensional ecological rivers can be connected with one another and combined and can be used partly or separately, and can cooperate with other ecological buildings, cooperating accessories, cooperating systems, cooperating

devices, ordinary buildings and building complex can be provided in the village-house type functional ecological buildings and ecological scientific towns; the multifunctional tridimensional combined ecological architectures comprise several tridimensional ecological buildings, which combine tridimensional ecological environments and building structures together, which can be provided inside the buildings, outside the buildings, complementary, opened and closed, mechanically transmitted, overlapped, consistent to Yixue, underground, aboveground and semi-underground, they can be super-high, middle, or low tridimensional ecological buildings or single-storey buildings or subterreanean, and they can also be awnings for cultivations, movable long corridors, tridimensional lands, ecological bridges, tridimensional ecological walls, tridimensional combined frames, tridimensional ecological rivers, ecological residential houses in rural areas, ecological villas, ecological factories, public utilities, ecological researches and other forms, most of all, they can form or partly form tridimensional ecological villages and tridimensional ecological towns for habitants, lounges, or public places, which can be arranged independently or together with production type ecological environment structures; the space rotating cultivation frames for organisms comprise building structures, electric rotating devices, rotating pivot points, cultivation plates (boxes) for plants and organisms; frame type tridimensional cultivation devices for organisms comprise frame structures, rotating controllers, rotating transmitters, organisms cultivation ecological boxes, underground pool for storing and purifying water, methane tanks and others, and may be arranged singly, or in combinations, and can be located aboveground and underground and in any portions of the buildings the solar power, wind power, water power, mechanical power

generation systems are mounted on the buildings; the solar power generation systems comprise solar power receiving sheets (plates, coats), power storages, electric transmitters, and can be separate, fixed, movable, door window, lying types, and can be placed on the ground, inside or
5 outside the buildings, and can be provided in the whole or part of the building; the wind power generation systems comprise wind power generation devices (wind leaf type, interior type, wind power channel type) that can be connected with the storage and transmitter of the solar power generation devices and can be arranged separately. Which
10 includes energy-saving systems that save energy, water and electric power, oxygen chambers and oxygen generating and transmitting systems, air conditioning and blowing and recycling systems, purifying systems for air and water, rain and snow water collecting, storing, purifying and supplying systems, clear water supply systems, systems
15 for recycling, sorting, purifying and utilizing used water, methane storing and utilizing systems, cultivation systems for aquatics, cultivation and irrigating systems for plants, illumination systems, artificial intelligence automatic control systems, ecological covers systems, movable ecological spaces with equipments, ecological systems
20 for habitants and plants, ecological buildings structures, tridimensional forms of ecological buildings, sunlight refractive and transmitting systems, new functional type constructing materials and equipments supplying systems, heating/cooling air devices (passages) systems for filtering water, water transmitting, storing, supplying systems, combined
25 ecological buildings network systems, organisms systems for sightseeing, systems for organisms production, processing and storage, mechanical frame transmitting systems for cultivation of organisms, those auxiliary and cooperating devices and equipments systems may generally

cooperate with the ecological buildings to form high quality large-scale or luxury ecological buildings for habitants' continuous development, or to form middle or small-scale ecological buildings with fewer equipments or single type building; combined multifunctional tridimensional ecological architectures may be in different forms, including tridimensional ecological buildings mainly for habitants and secondly for ecological green environments for organisms, such as office buildings, residential houses or business buildings, tridimensional ecological buildings mainly for ecological green environments for organisms and secondly for habitants, tridimensional ecological buildings mixedly for habitants and ecological organisms environments together, tridimensional ecological buildings for sightseeing, tridimensional ecological buildings for cultivation of plants, tridimensional ecological buildings for cultivation of animals, tridimensional ecological buildings for cultivation of plants, animals and organisms together, multifunctional tridimensional combined ecological architectures for habitants, for cultivation of plants and organisms, and for natural ecological environments, mechanical frame type ecological buildings for cultivation of organisms, ecological buildings that can be opened and closed, opened, closed, and the combinations; the building systems comprise a type of air water recycling system that includes ecological buildings, inlets and outlets devices for air, air passages, air water filtering, purifying and storing devices, the system extracts the water from ecological buildings and other humid airs via temperature differences, and stores the filtered water for organisms. The air cooling/heating filtering devices (passages) systems extract water from air based on the temperature difference between cool air and hot air. The large, middle, small electric air water filtering devices and the

cooling/heating air water filtering passage devices can be assembled together, which can be mounted in different spaces in the ecological buildings, and can also be mounted in oxygen transmitting, air passages, air purifying and recycling systems, and can also be made products for sale, with much water saved, the water transmitting, storing and supplying systems comprise the internal water transmitting, storing, and supplying systems inside the ecological buildings and structures, as well as the external water transmitting, storing, and supplying systems from outside, the external water transmitting, storing, and supplying systems from outside comprise water transmitting passages (rivers, underground rivers, passages, water pipes) and water reservoirs (including water transmitting passages, one or more sub branch water reservoirs, reservoirs type water passages, water reservoirs for cultivation of aquatics, air cooling/heating water filtering passage devices, water purifying and sanitation systems, purifying systems for polluted water, various types of ecological organisms and plants gardens, passage type ecological warm house network and other ecological buildings that form the ecological network systems), the internal and external water transmitting, storing, supplying systems can be integrated together or separated; the combined type ecological buildings network systems comprise various types of tridimensional ecological buildings (including the buildings for habitants, for organisms, for transportations, for agricultures, other agriculture buildings for habitants, and awnings) that combine with natural environments, which connect with one another to form network systems, the network systems may be large or small, with more or less number of ecological buildings; the organisms processing and storage systems refer to the storage (including the cool reservoirs) of the organism productions and the deep processing of the organism

productions, comprising in detail the network systems from the storage of the seeds, cultivations, research, production, processing and sales; mechanical frame transmitting systems for cultivation of organisms refer to the structures for cultivation of organisms using transmitting methods, comprising various transmitting devices and various types of flow lines, as well as the formed ecological building structures and complement structures characterized in the structures with frames, steel frames, concrete frames or combined frames, the transmitting devices can be operated manually or automatically, the concrete frames and the combined frames may be provided on the top, middle part or the bottom of the building structures, which may be fixed or assembled, and which may be provided inside or outside of the building structures and other portions, and which may be combined with warm houses that may be opened and closed, may be awnings, and may be plants frames, and which may be combined with structures for cultivation of organisms; the organisms systems for sightseeing are inside or outside the ecological buildings for habitants to contact natural environments, which may be provided partly in the yards of the buildings with different occupied areas, and which may be provided in one or more layers of the tridimensional spaces, and which may be provided in porches, corridors, parlors, public areas, stadiums, which may be combined with production type ecological environments or may be separate; the solar power, wind power, water power, mechanical power generation systems are mounted on the building structures, the solar power generation systems comprise solar power receiving sheets (devices), power storages, electric transmitters, which can be separate, fixed, movable, door window, lying, and which can be aboveground, inside or outside the buildings, and which can be constructed entirely or partly; the wind power generation

systems comprise wind power generation devices (wind leafs, inside buildings, wind power channels) that can be connected with the storage and transmitter of the solar power generation devices and that can be separately used, those above mentioned are part of the technical systems

5 of the tridimensional combined ecological buildings, which can be entirely, partly or separately used, with functions and structures being variable, the unit of the combined ecological environments (structures) may be arranged horizontally, vertically, inclined, in various regular and irregular arrangements, or in the combinations, the structures may be

10 opened, closed, movable, opened and closed and the combinations, the structures may be opened and closed horizontally, vertically, inclined or the combinations, the ecological buildings may be high or low with one or more layers, the ecological (plants) spaces can be mounted at one place or more places in the buildings, the unit structures of which

15 corresponds with the number of storeys of the buildings and can have one or more storeys and awning type spaces, the unit ecological spaces can be divided into several layers of ecological environments, in which cultivation environments for plants and natural ecological environments are provided, such as rockeries, pools, flowers and grasses, tropic forests,

20 fish and birds, organisms in flow water, the occupied areas of which can be small or large in one of the spaces or in most of the spaces with large occupied areas, they can be combined with environments for habitants, such as tea houses, meeting rooms, recreation areas, business rooms, to form new type of building environments and cultures. The ecological

25 environment spaces can be internally divided into several parts, seasonal cooling/heating climate adjusting systems, automatic monitoring systems, alarming systems, background music systems, fire prevention and fighting systems, air purifying water filtering systems, oxygen

output systems, water supplying and recycling systems with cooperating devices, contamination prevention and ultraviolet sanitation systems, all of which may be independently provided or unitedly provided with the ecological buildings, with unlimited numbers. The various types of

5 tridimensional ecological buildings comprise the combined multi-functional tridimensional ecological buildings, the tridimensional building structures for cultivation of plants and organisms, the hood type ecological buildings, aboveground/underground ecological buildings for cultivation of organisms, the tridimensional land type ecological

10 buildings for cultivation of organisms, the tree shaped frame type ecological buildings for cultivation of organisms in the air, the turret type ecological buildings, aboveground/underground combined passage type ecological buildings, multifunctional ecological buildings, Taiji-figure (Yixue) type ecological buildings for cultivation of

15 organisms and the cooperating devices and systems; The functions of the combined village-house type functional ecological buildings comprise the combined functions of the multifunctional ecological buildings so that they can independently exist under various types of natural environments, and have solar power and other power generation devices,

20 water recycling systems, aboveground/underground ecological devices, tridimensional ecological lands, tridimensional ecological roads, tridimensional ecological bridges, tridimensional ecological walls, tridimensional ecological rivers, aboveground/underground water reservoirs and the various plants and organisms (including the aquatics)

25 cultivation (incubation) systems complementing to the various systems. The functions of the combined village-house type functional ecological buildings, may combine with the functions of various types of tridimensional ecological buildings, the functions of combined type

multifunctional tridimensional ecological buildings, the functions of tridimensional ecological buildings for cultivation of plants and organisms entirely, partly or separately, forming series of ecological buildings with unlimited architectural forms. The functions of

5 tridimensional ecological lands, the functions of tridimensional ecological roads, the functions of tridimensional ecological bridges, the functions of tridimensional ecological walls, the functions of tridimensional ecological rivers, the functions of aboveground/underground water reservoirs and the various cooperating

10 systems for cultivation of plants and organisms can be entirely, partly, or separately combined to form various types of ecological building structures, and to combine with other building structures with unlimited architectural forms; the functions of combined village-house type functional ecological buildings, the functions of various types of

15 tridimensional ecological buildings, the functions of multifunctional tridimensional combined ecological architectures, and the functions of tridimensional ecological building structures for cultivation of plants and organisms can be entirely, partly, or separately combined to form series of ecological buildings with unlimited forms. The functions of

20 tridimensional ecological lands, the functions of tridimensional ecological roads, the functions of tridimensional ecological bridges, the functions of tridimensional ecological walls, the functions of tridimensional ecological rivers, the functions of aboveground/underground water reservoirs and the various cooperating

25 systems for cultivation of plants and organisms can be entirely, partly, or separately combined to form various types of ecological building structures, and to combine with other building structures with unlimited architectural forms.

2. The multifunctional ecological architecture according to claim 1, characterized in that the air water saving recycling systems comprise air water filtering devices, in which air is transmitted to the purifiers through the inlets by wind blowers, in which heating devices are provided to vaporize the water in the air, and the vaporized water is filtered out by the cooling filtering and suspending devices in the cooling devices and discharged out of the water filtering purifiers from the outlets, which can be used for ecological buildings, or can be stored in the water reservoirs, the air water filtering purifiers may be upright-type, caged-type, suspended-type or the type of air-conditioning, and may be used inside ecological buildings for cultivation of organisms, and which can be used in other applications as multifunctional air water filtering purifiers of small and large types.

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3. The multifunctional ecological architecture according to claim 1, characterized in that the buildings are provided with intelligent control systems that can be controlled entirely, partly, or separately, the ecological buildings can be provided with theft and fire prevention and fighting alarming systems, image transportations, dialogue system for security in buildings, closed-circuit monitoring systems, and natural energy resource power generation network systems are provided which comprise wind power generation devices, solar power generation devices, water wheel power generation devices, elevator type power generation devices, mechanical power generation devices, and energy storing and distributing systems that include storage batteries, voltage transformers, power distribution plates, bolts and connecting wires, the power generation devices and energy storing systems may be combined.

together with integrated power storing and distribution, and can be combined or separately provided in the facilities, the ecological buildings are provided with water supply and drainage pipes systems and wind passages systems, the two systems can be integrated or separately
5 arranged, the water supply and drainage pipes systems can be provided with pumps, water reservoirs, water purifying devices, and methane tanks. The wind passages systems can be provided with fans, wind power generation devices, air water purifying and filtering devices and oxygen suppliers and transmitters system.

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4. The multifunctional ecological architecture according to claim 1, characterized in that the ecological buildings have roof type, inside building structure type, and outside building structure type ecological building structures for cultivation of organisms, roof plants and
15 organisms structures and sunlight passages for plants. They can be provided on the building structures, on the single-storey buildings, on the semi-underground buildings and on the underground buildings, which can be houses for plants, garden square areas for plants, formations for plants productions, and which can be road type structures
20 for cultivation of ecological plants and organisms, forming networks. They can be integrated with other buildings and cooperating devices, or can be independent. The ecological buildings may be village-houses, villages, and integrated or separated buildings, with the functions of plants and organisms provided entirely or partly in the ecological
25 buildings. There are systems for storing rains and snows and for recycling, which comprise water reservoirs, air water filtering passages, water filtering and purifying devices, water purifying and storing devices for cultivation of organisms, clean water filtering devices, clean water

storage devices, water recycling systems and water supplier and water saving devices. The devices and cooperating devices can be with more or less numbers, which may be used together, separately, or combined with other devices. The ecological buildings can be provided with transmitting devices for cultivation of organisms, which may be upper moving orbits, succeeding flow transmission belts, horizontally arranged transmitting orbits, vertically arranged ground orbits and other transmitting devices. The devices may be the boxes for cultivation of organisms, which may be suspended, laid, piled, tridimensional, etc. The cultivation boxes for organisms may be with soils, waters, soilless cultures, other artificial soils, or volcanic ashes that are substitutes for soils. Heating devices and irrigation devices may also be provided in the cultivation boxes for organisms, such as solar power heating and discharging devices, water spraying devices.

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5. The multifunctional ecological architecture according to claim 1, characterized in that the buildings are provided with solar power generation and saving systems that comprise solar power receiving plates, electric storage devices, transformer devices, current meters, power distributing devices, electric supplier networks and other cooperating devices. The solar power systems may be integrated ones or separated ones. In the integrated solar power systems, the electric suppliers devices in the ecological buildings or the ecological building structures are integrated together for use in the entire buildings, while in the separated solar power systems, they are mounted in part areas of the buildings for use. The solar power generation and saving systems, as well as the various types of integrated or separated solar powers may be used for all or part of the appliances inside the buildings. The solar

power systems may be laid, upright, fixed, folded, rotating, in the form of sleeping porches, door windows, curtains and walls, which can not only be applied to ecological buildings, but also be applied to other building structures. One or more same or different building roof awnings and building transparent walls may be used to enclose the buildings and the separated outside spaces, or the entire buildings. The inside spaces may be ground type natural environments or tridimensional layer type ecological environments for cultivation of plants. The newly added building roof awnings and the building transparent walls may be fixed, disengaged, opened and closed, and other structures with unlimited forms. The ecological buildings can be provided with underground spaces for organisms, for habitants, the top roof of which comprising single-layer or double-layer enclosed devices that are parallel, or not, to the ground. On the enclosed devices are fixed transparent glasses or other devices that can be opened and closed. The opened and closed devices may be windows with small-occupied areas, may be other large devices that can be opened and closed. The underground ecological buildings may be combined with the ecological buildings, or may be separate, inside which there are spaces for plants, for organisms, for habitants, for both organisms and habitants, and which may be with one or more layers. Passages type ecological buildings are provided in the buildings, which comprise walls, awnings made of glasses and other combinational materials. The frames may be disengaged, combined, with one layer or more tridimensional layers, inside which there are organisms incubated for sightseeing, passages devices and habitants environments, underground ecological spaces for cultivation of organisms, and additional cooperating devices, such as water suppliers, water storages, and water purifying devices.

6. The multifunctional ecological architecture according to claim 1, characterized in that the various types of ecological buildings may be combined entirely, partly or separately, which may be combined with other building structures. The buildings comprise main buildings, secondary buildings, cooperating buildings, cooperating devices, upper water devices, cooling/heating devices, solar power generation devices, wind power generation devices, building roof garden structure environments, building roof transparent sunlight warm houses, roof frame rain-proof type ecological spaces. The present buildings can be added with ecological warm houses, awning type ecological buildings, forming combined ecological buildings and roof gardens, with lifting devices, passages, ladders and other functional structures, and with building functions and shocking-proof functions. Solar power warm houses awning spaces and other agriculture productions can also be provided, which may be on the top roofs, on the grounds or underground. The solar power generation devices may be provided inside or outside the buildings, on the awnings, on the grounds, which may be connected with lines to supply electric power for warm houses, illuminations for awnings and other appliances. The solar power generation devices may be combined with other complement functional devices. The ecological buildings may be in the form of upright studs, turrets, triangles and other forms. Ecological environmental spaces composed of plants and waters can be provided inside the buildings and on the surfaces of the buildings. The plants may be provided internally, externally, or internally and externally. The internally provided spaces can be provided opened and closed, as well as with ventilation devices. The ecological spaces in the building structures for plants may be provided in different layers, which

may be with one or more layers, and which may be arranged in high layers, or arranged as desired. Plants can be provided with unlimited numbers, which may be integrated together with hills and flowers, grasses, gardens and habitat environments. The plant environments
5 may be also for habitants, recreations, works, sightseeing, productions and the combinations, and may also be designed large-scale ecological buildings with other non-ecological plants buildings. Oxygen passage systems, water purifying systems, water reservoirs, water recycling systems, ventilation systems, ecological systems for cultivation of
10 organisms, cultivation systems for aquatic productions and other systems may all be provided with ultraviolet sanitation devices that may be houses, boxes, pipes and lamps that can be with different numbers and different structures.

15 7. The multifunctional ecological architecture according to claim 1, characterized in that solar power generation devices, wind power generation devices and solar power refractive and transmitting devices are provided. The solar power generation devices may be laid or upright, may be rotating or fixed, may be provided on the grounds, or the
20 inside/outside spaces on the buildings. The wind power generation devices may be separated ones or combined ones, which may be on the grounds or buildings. The wind power generation devices may be driven by external natural winds or internal passage winds. The solar power refractive and transmitting devices may be divided into reflecting plate
25 (walls) type refractive devices and transmitting devices. Refractive devices may be fixed or movable with lights that may be moved automatically or manually. The solar power generation devices, wind power generation devices, solar power refractive and transmitting device

may be combined with their separate functions or entire functions, with different forms and structures. The several types of devices may be combined together or separately. The ecological buildings comprise passage type ecological warm houses in the form of long passages that are connected with one or more building structures, forming networks. Houses and other habitant environments can be provided inside the passages, where ecological environments for plants and organisms can be provided. The habitant environments may be for meetings, for recreations, for offices and residential houses, may be provided with single-passage or double-passage transportation roads, may be with one or more layers, may be underground, aboveground, underground and aboveground. On the above spaces of the buildings are provided with cooling/eating temperature control devices, ventilation devices, rains and polluted water discharging devices, polluted water purifying devices, solar power refractive and transmitting devices, inside cooling devices and other devices. The functions of ecological passage devices can be combined with the functions of the cooperating devices. The cooperating devices may be aboveground, underground with unlimited numbers and different structures. The ecological buildings are provided with oxygen supplier systems and ventilation systems, water supplier systems, water purifying and recycling systems, and sanitation devices are equipped inside the systems, which inside the sanitation spaces, pipes, hollow walls, passages kill the deleterious materials in oxygen, ventilation winds and water flows, converting them to in-noxious gases and water flows. Other sanitation methods may also be used, such as heating (insolation and dry). In a type of tridimensional roads type ecological buildings, roads and ecological buildings are provided underground or aboveground with different layers. The roads and ecological buildings

may be arranged in different methods with different forms. The tridimensional road type ecological buildings may be connected with normal roads, or may be separate, with unlimited lengths, any forms and structures. They may be combined with large-scale buildings, and
5 provided with ecological spaces, water reservoirs, solar powers, water purifiers, and cooling/heating devices.

8. The multifunctional ecological architecture according to claim 1, characterized in that a type of combined ecological towns may comprise,
10 entirely or partly, various types of aboveground, underground ecological buildings, tridimensional ecological roads, tridimensional ecological bridges, ecological passages, tridimensional plants, land type ecological buildings, water collectors, water reservoirs, water purifying systems, cultivation systems for aquatics, obvious and hidden rivers network
15 ecological environments for aquatics, tridimensional ecological walls and buildings, ecological town water systems. The ecological towns may be combined with normal buildings, with various types of irregular ecological garden environments that can be opened and closed, and various types of ecological cultural places for habitants. The ecological
20 towns can be provided with various numbers of cooperating buildings and cooperating devices, complement structures. The structures may be variable with small or large occupied areas. The ecological buildings may be in the form of single house, single villa, which may be agriculture ecological villages, or the combined ecological structures
25 both for habitants and for organisms. The ecological towns and the ecological buildings are equipped with various types of solar power generation devices, various types of wind power generation devices, methane tanks, dealing systems for polluted water, used water and feces,

water reservoir ditches and rain storages, water purifying systems. All those cooperating devices may be with various numbers, functions, structures and positions. A type of tridimensional ecological land type buildings comprise plants, grasses and underground ecological buildings.

- 5 A type of awning type agriculture ecological warm houses for production comprises aboveground warm houses, underground warm houses, and the combined warm houses that are partly aboveground and partly underground. The aboveground warm houses (awnings) may be with one or more layers. The underground warm houses may be with one
- 10 or more layers. Both the aboveground warm houses and the underground warm houses can be used for cultivation of organisms. Water reservoirs (methane devices) can be provided inside/outside the ecological building layers. The buildings may be aboveground or underground, may be open to the air or enclosed, may be opened, fixed or movable. The water
- 15 reservoirs may have passages for rains and snows, through which the rains and snows around the buildings may be stored for future use. Water filtering and purifying devices may also be provided. The water pipes may also be used for external water resources, such as the water from wells and the used water. The buildings may be provided with building
- 20 cultural places for habitants, for rest, for processing, for recreations, for reservoirs and for sanitations. Solar power generation devices and wind power generation devices may also be provided for the buildings, which may be arranged vertically or laid with variable structures, and which may be integrated entirely, partly or separately for use. Water suppliers
- 25 systems may also be provided. The buildings may be used for cultivation of plants and various types of organisms that plants are used to breed animals, and animals are used to culture plants, and the feces from animals may be used for plants and for methane tanks that afford heat to

the buildings. The buildings may be with various occupied areas, structures, numbers, which may be combined with town buildings, complement area buildings for agricultures, forests, fisheries and other industries, and may also be combined with village buildings, villas and other cooperating buildings. Sanitation devices systems may be provided inside the ecological buildings that mainly use ultraviolet light, and secondly use medicines, temperatures, and the two methods may be combined or separated. The sanitation functions may be provided in the sanitation spaces, the outlets of the ecological cultural places for habitants flow, materials flow, water flow, devices flow and air flow, air flow systems, oxygen flow transmitting systems, water purifying and sanitation systems, upper and lower water systems, areas for cultivation of organisms and areas for habitants. A type of ecological buildings with Chinese traditional cultures eight Gua and Yixue principles; characterize with Gua and Taiji a graphics. The yin and yang graphics denote the cultivation of organisms, indicating that the organisms inside the ecological buildings may live permanently. The eight Gua in the graphics may be graphics; and may also be the ecological functions of the ecological buildings, such as the sunlight transmitting devices, air ventilation systems and water recycling systems, small building systems for cultivation of organisms (for examples, rooms and awnings). The yin and yang fish may be rotating or fixed. Other ecological buildings besides those in the graphics may also be added. The graphic combinations may be flat or rugged. The single or combinational parts of the eight Gua may be arcs or straight lines, which may form rectangles and circles with sixty-four Gua. The Gua may be with various numbers, which may be single Gua or combinational Gua, forming various forms of ecological buildings, such as of high layers turrets type, of pyramids

cones types, of ladders types, of huge, circle or combinational buildings type. Environments spaces for cultivation of plants and for habitants may also be provided inside/outside the ecological buildings. Standard Taiji graphics as well as deformed Taiji graphics may be used. The forms and functions of Taiji graphics, the graphics and functions of eight Gua Taiji graphics, as well as the derived numbers of eight Gua may bi-dimensionally or tri-dimensionally combine to form large scale Taiji and eight Gua type huge ecological buildings structures matrix, with various numbers of eight Gua and Taiji ecological buildings, which may be ecological buildings for habitants, for cultivation of organisms, for cultivation and production of Chinese medical plants and organisms. It is one of the important features of the combined ecological buildings to have combined ecological buildings. Common ecological buildings may be used to replace the Taiji graphics on the eight Gua type ecological buildings, making them to be common ecological buildings, which may be for cultivation of organisms, for cultivation and production of organisms, for sightseeing, for research, for habitants and for the combinations.

9. The multifunctional ecological architecture according to claim 1, characterized in that a type of movable ecological buildings may be with one or more layers, under which are provided with wheels that comprise multiple sets of wheels. The wheels may be mounted directly under the buildings, which may be disengaged, and which may move on the laid orbits or in other forms. The type of ecological buildings may be applied to passage type ecological buildings, small warm house buildings, and may be aboveground, underground and inside the buildings with different structures, which may be frame transparent, may be mounted

and disengaged, and in other forms. The buildings may also be provided with various types of ecological mechanical devices that can move, rotate, slide and roll. A type of village-house type ecological buildings comprise tridimensional ecological rivers (lakes), tridimensional ecological walls, underground and aboveground tridimensional ecological roads, underground ecological building structures, aboveground ecological building structures, water recycling, purifying, and storing systems, sunlight refractive and transmitting device systems, cultivation systems for organisms, air ventilating, purifying and exsiccating systems, air water sanitation systems with ultraviolet light, solar power, wind power and mechanical power generation devices systems, computer aided monitoring systems, artificial intelligence automation control systems, automatic alarming systems, ecology systems for habitants, factory processing systems, storing systems, light transmitting and refractive systems, electric supplier and water supplier systems. The tridimensional ecological rivers comprise rains, snows, and used water collecting, purifying and storing systems (water pools, reservoirs, lakes), where the external water receiving systems receive rains and transmit them directly to water reservoirs, artificial rivers (and natural rivers, lakes), segmented rivers by cover plates (nets), main recycling rivers, sub branch ecological river (lake) water suppliers pipes, water purifying systems, ecological water reservoirs, recycling and purifying devices systems, heating and cooling devices systems, purified water storing devices systems, ultraviolet light sanitation spaces (passages) systems and other systems. The tridimensional ecological walls comprise wall systems, for examples walls, barriers, wall bridges, ecological building internal walls, warm house, ecological spaces for plants and animals, turrets buildings, etc. The tridimensional ecological

buildings systems comprise various layers ecological buildings, underground ecological environments, common buildings, special functional buildings, etc. Solar power, wind power generation devices can be provided entirely or partly in the buildings systems, which may
5 be on the ground, and used for the entire buildings or part of the buildings. A type of tridimensional combined ecological towns comprise aboveground ecological buildings, underground ecological buildings, combined ecological buildings that are partly underground and partly aboveground, aboveground and underground tridimensional road type
10 ecological buildings, aboveground and underground tridimensional land type ecological buildings, aboveground and underground public utilities, tridimensional ecological walls, tridimensional ecological rivers, and ecological buildings for habitants. The ecological buildings comprising many, few or single ecological buildings have discharge ditches or other
15 water collecting, discharging, purifying and storing systems, which may purify and store rains, snows and used water. The buildings may have solar power, wind power generation devices, air exsiccating and filtering devices, cooling, heating, temperature controlling, water storing and sanitation devices and other cooperating devices. The tridimensional
20 ecological roads have light transmitting and refractive devices. Ecological spaces for organisms and habitants can be provided above, on, or under the tridimensional ecological road type, land type ecological buildings. The ecological towns have tridimensional ecological walls, tridimensional ecological rivers (lakes), which may be entirely or partly
25 surrounding the ecological towns. Ecological walls may be flood-preventing type or secure type. Walls can be provided with aboveground and underground plants environments, ecological spaces, warm house, watch towers, gardens, hills and water, wall bridges, closed

doors with various forms and structures, which may be combined with other ecological structures for organisms, and which may be inside or outside the buildings, may be integrated with simple barriers, buildings structures with high, middle and low qualities. Tridimensional ecological river systems may be the water systems comprising rivers, lakes, water reservoirs, ecological cultivation buildings, water purifying devices, polluted water dealing devices, various river sections for cultivation of organisms (aquatics), which may be aboveground, underground, opened to the air, closed, or opened and closed, and which may be connected with external water systems. Tridimensional ecological walls, tridimensional ecological rivers, cooperating building structures and cooperating devices may be with different structures and different numbers, which may be combined with tridimensional ecological towns, single house, or combined houses, or may be separate for use. Tridimensional ecological towns may be provided with none, either, or both tridimensional ecological walls and ecological towns, or only use common barriers, rivers, roads and buildings to divide the ecological towns to different areas. A type of air water exsiccating, purifying and filtering devices from air according to cooling/heating principles, comprise air inlets, air heating structures, air cooling and water filtering structures, water outlets, air outlets and other cooperating devices, in which air can be heated by heating winds, electrics, heating gases, heating water, methane, and cooled by electrics, cooling winds, cryogens, ice, cold grounds. They can be applied to ecological buildings, warm houses as cooperating devices, with a series of products that have different forms, structures, occupied volumes. They can be provided with sanitation devices using electric or ultraviolet lights, which may be boxes, pipes, passages and other forms. Cooling/heating pipes,

suspended plates, suspended pipe networks can be used for heating and cooling, which can be integrated with exsiccating devices and other functional devices. They can be applied to humid areas as civil products, such as ecological buildings, warm house cooperating devices for plants
5 and organisms.

10. A tridimensional ecological land-type ecological architecture, which comprises building structures with one or more storeys that are under the grounds, under the grounds of ecological plant covers and organisms that
10 are aboveground. The ecological plant covers lands may be flat, may be in the form of tridimensional garden buildings, hills and water, lakes, building patios, agriculture buildings, or may be the combinations of multiple ecological plant covers and the building gardens. The tridimensional land type ecological buildings may also be added one or
15 more layer of frame type ecological building structures above the ecological plant covers lands. A type of top roof frame type transparent ecological building structures (and hood type ecological covers), comprise aboveground or underground tridimensional ecological buildings and top roof frame type structures. The top roof frame type
20 transparent structures comprise frames and transparent glasses. The frames may be metallic frames, concrete frames, or the combined frames, with their forms and structures being bi-dimensional or tridimensional, which may be opened to the air, or opened and closed. The frames can be provided with sunlight refractive and transmitting devices, solar
25 power generation devices. Sand-proof cover devices that can prevent sands may also be provided on the frames, which may be opened and closed automatically or manually, which can be applied not only to top roof frame type transparent structures, but also to passage type

ecological awning buildings, tridimensional agriculture awnings, transparent warm houses and other ecological buildings and devices. Various types of tridimensional ecological buildings comprise multifunctional tridimensional combined ecological architectures, hood
5 type ecological buildings, aboveground and underground ecological buildings, tridimensional land type ecological buildings, tree type tridimensional ecological buildings for organisms, turret type ecological buildings, aboveground and underground combined passage type ecological buildings, multifunctional ecological buildings, Taiji graphics
10 (Yixue) type ecological buildings for organisms and other ecological buildings with cooperating devices and systems. The functions of combined village-house type functional ecological buildings may be entirely, partly or separately combined with the functions of several tridimensional ecological buildings. The functions of the unit spaces in
15 the several tridimensional ecological buildings may be separately, partly or entirely combined.